

VC

DATE FEB 65
Pg. # 1

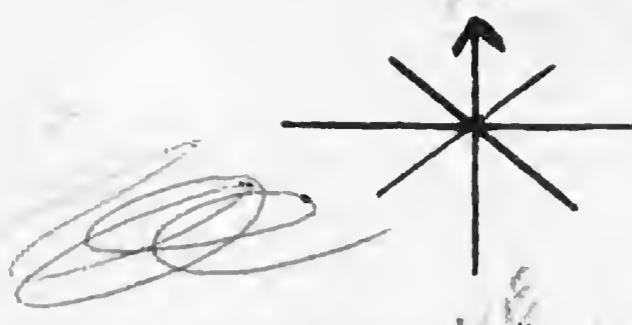
time	species	#	dir.	hgt.	remarks	loc.
0945					LEAVE PIER	
1035					CLEAR HARBOR	
1045	BLACK-NECKED STILT	20+				
	SANDERLING	7			AT HARBOR ENTRANCE.	
	BROWN Booby	2			ON Buoys	
1105	Sooty Tern	2				
1107	Gaeger, Pomerine	1				
1116	POMERINE JAEGER	1		30'	Imm. plumage	
1138	WHITE-TAILED TROPICBIRD	1		TO 60'	- Chased by JAEGER Jaegers or Sooty Terns	
1215	Bird sp.	3			Crossed bow 100 yds out, to port	
1218	Porpoise	2-3			Ad.	
1218	Pom. Jaeger	1			on water	
1219	" "	1				
1222	Booby (Br?)	1				
1222	Black-footed Albatross	1				
1245	Black-footed Albatross					
1245	PORPOISE ca. 10					
1247	Black-footed Albatross	1				
1248	POMERINE JAEGER	1				
1250	RED-footed Booby	1				
1311	POMERINE JAEGER	1			strong wind coming from 45° Sb, at least 3 Jaegers soaring off port stem above level of flying bridge, alternately flying out & and back to position - using lee of ship or wave updrafts?	
1330	" "	1			7 total following	
~1345	" "	5-8			12-15 total at once	
	Black-footed Alb.	1			total 4 together	
	Laysan Alb.	1			with jaegers & Black-foots } } all feeding on	
F 1430	Sooty Tern	50+				
	Shear-Pet	10+				
	Red-foot Booby	2			Ad } distant probably wedge-tails	



N G

DATE 1 Feb 1965
Pg. # 2

time	species	#	dir.	hgt.	remarks	loc.
1500	Black-footed Alb	2			following with 4	
1515	Sooty Tern	1				
1515	Booby(?) sp.	1				
1600	Black foot Alb.	2?				
1645	Sooty Tern	35 ⁺ 5			driving repeatedly - 1 1/2 miles	
	Noddy Tern	5 ⁺			6 following, had dropped to 4 in past hour	
1700	Black foot Alb	2			Travelling	
1815	" "	-			8 at once	
1815	Rom. Jaeger	5			5-6	
1824					Had been 2 for long time, then 7.	
					Sunset	
						Sooty Tern 88/4
						Rom Jaeger 19/9
						WYR 1
						Bird 3/1
						B? Booby 1
						BFA 10/7
						RFB 3/2
						LA 1
						S-P 10/1
						Booby 1
						Noddy 5/1



DATE 2 Feb 65
Pg. # 1

time	species	#	dir.	hgt.	remarks	loc.
0650	Begin Observations					
0652	BFA	2			following ship	
0705	BFA	1			Total of 3	
0707	BFA	2			" " 5	
~0710					Sunrise	
0715	Black foot Alb.	2				
0722	Frigate? Sooty Tern	2			Distant, did not come in to ship	
0804	Booby/PEAN	1	↓			
	W Tropic					
0806	W Tropic	1	↓			
0915	Leach's Storm P	1				
0823	Black-f. Albatross	2			— TOTAL OF 9 following sh.,	
0847	" " "	2			" following	
0855	Sooty TERN	3	↗			
0920	Sooty Tern	1				
0925	RFB Sooty Tern	2			Booby Fishing	
1020	WTTB	1	⑥			
1050	RFB	1			adult	
F 1055	Sooty Tern Fairy Tern	4	↗		Travelling	2 BFA have bands
1109	Sooty Tern	3				BFA 23+ / 9
1110	BFA	1				ST 61/10
1117	"	2				WTT 3/3
F 1213	FAIRY TERN	1	↓			LSP 1/1
F 1300	Sooty TERN	7				RFB 5/8
F 1405	Sooty TERN	1				FT 2/2
1512	SOOTY TERN	1	↖			BFB 1
1607	MASKED Booby	1	⑦			97/27
1620	Black-footed Albatross	9				
1636	Red-footed Booby	3	⑦		- TOTAL 16, dropped to 6-7 from previous 1/4	
F 1825	SOOTY TERN Red-footed Booby	37	⑦		- 2 Adult, 1 imm	
1837		1	⑦		Not feeding - 1mm Booby - salt & pepper back, blue bill, wings adult	
					Sunset	



DATE Feb. 3, 1965
Pg. # 1

time	species	#	dir.	hgt.	remarks	loc.
0715					Begin observations	
0730					Sunrise	
0730	Black-foot Alb	6				
0755	Sooty Tern	7	↔			
0800					5 BFA	
0830					" "	
0915					4 "	
0925	Sooty Tern	1				
0930	SHOREBIRD	1	→	LOW	SANDERLING OR RED Phalarope	
1000					6 BFA	
1030					" "	6
1100					2 " (others possibly on Water?)	
1230					3 "	+1
1300					2 "	
1330					3 "	+1
1400	marked Booby	1			4 "	+1
1430					2 "	
1500					4 "	+2
1530					5 "	+1
1535	Sooty Tern	5			Travelling	
1600					4 BFA - time set back 1 hr. for X-Ray Time	
1530					6 BFA	
1535	MASKED Booby	1	○			
1733	RED-foot. Booby	1	○		sub-Adult. <u>banded</u> - landed on rail of Helo deck	
1755					Sunset 2 Black-foots still present	
					BFA 12/6	
					ST 13/3	
					SA- 1	
					BFB 2/2	
					RFB 1	



DATE Feb. 4, 1965
Pg. # 1

time	species	#	dir.	hgt.	remarks	loc.
0640	BR. TERN	Black-footed Alb.	3		Sunrise 0640	
0645		"	2		"	
0700					5 BFA	
0730					5 "	
0800		3			8 "	
0805		3			11 " all on water	
0813	GREAT FRIGATE.	2	①			
0830		1			12 ?	
0900					11-12	
0930					6-10 ?	
0950	Red-footed Booby	1			Imm off stem, possibly feeding on flying	
0955	Frigate	2	①		fish	
1000					12 BFA	
1100					8 "	
1120	Sooty Tern	1				
1155	Frigate	1	②		Both immatures	
	RF Booby	1				
1200		2			10 BFA	
1230		3			13	
1300					9 BFA	
1330					3 BFA	
1400					8 BFA	
1420	Sooty Tern	1	1224			
1430					5 BFA	
1500					3 BFA	
1530					10 BFA	
1540	Frigate	1	①			
1600					8	
F 1655	Sooty Tern	40	25		6 BFA	
	Fairy Tern	10	22		10 BFA - 1630	
F 1659	Sooty Tern	7			Travelling	
1700						
1705	Frigate	1			Travelling	
1814					11 BFA	
					SUNSET	
						BFA - 25/9
						GF - 7/7
						RFB - 2/2
						JT - 49/4
						FT - 10/1

$$\begin{array}{r} 35 \overline{) 83} \quad 2.37 \quad 9 \overline{) 25} \quad 3.1 \quad 4 \overline{) 59} \quad 14.7 \\ \underline{130} \quad 105 \quad \underline{63} \quad 70 \quad 19 \quad 30 \\ \underline{250} \quad \underline{245} \quad \end{array}$$



DATE Feb 4-5, 1965
Pg. # 1

time	species	#	dir.	hgt.	remarks	loc.
1917	sooty Tern	1	-		WA	
1917	" "	2				
1920	" "	2			← U.I. SIGHTED	
1922	" "	1				
1925	" "	5-6				
1937	" "	?				
1939	" "	1				
1945	"	1				
1950	TROPICB.	R.J.-2				
1955	SOOTY TERN	5	IN		- PROBABLE REPTILED.	
2003	" "	3			AREA A (Tropicbirds still about.)	
2037	" "	4-5				
2045	" "	1-2-5				
2053	" "	1-2			- POSSIBLE STRING.	
2055	" "	3-6				
2140	" "	10-12				
2140	Tropicbird	1-2			Calling	
2203	"	2				
2203	SOOTY TERN	3				
2315	TROPICBIRD	2				
2416	sooty tern	5-8				
2430	" "	4-8				
2450	" "	1				
252	" "	2-3				



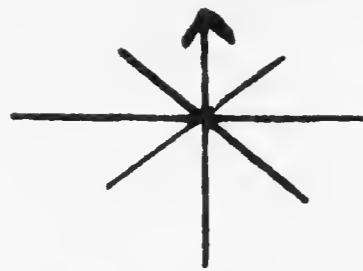
DATE Fe 64-3

Pg. # 2

time	species	#	dir.	hgt.	remarks	loc.
2205	ST	2				
2240	ST	2				
2215	ST	3	+			
2217						
2220	ST	8	+			
2230	ST	4				18-20-0
2235	ST	4	+			20-22
2239		5	+			22-24
2245	Tropicbird	2				00-02
2250	ST	5	+			02-04
2300	ST	3	+			04-06
2310	ST	1				
2315	ST	5	+			
2320	ST					
2325	ST	4	+			
2340		5	+			
2340	ST					
2345	ST	3				
2350	ST	7				
					2400	
0030	ST	3				
0040	ST	2				
0043	ST	5				
0055	Tropicbird	2				
0100	ST	4				
0110	ST	2				
0115	ST	3				
0120	ST	2				
0130	ST	2				
0135	sat	1				
0155	ST	4				
0218	ST	2				
0224	"	2				
0230	"	1-2				
0231		2			WPA	
					Tutk JI - Gip-yup meeting over ship same as above	
					visible	



DATE Feb 5 **4-5**
Pg. # 3



DATE Feb 5, 1965
Pg. # 1

time	species	#	dir.	hgt.	remarks	loc.
0645					Sunrise	
0645	Black footed Albatross	1				
0730	" " "	1				
0755	BIRD	1				
0812	MASKED BOOBY	1	↙	low	- DISTANT. - IMMATURE.	
0950	G. Frigate	1	①		Imm.	
1305	G. Frigate	1				
1530	RFB	1				
1658	RFB	2			2 mms. - one all dark above, dark bill, second with white head & rump, pale blue bill	
1730	WT Tropic	1				
1817					- sunset - 2 BFA still around	
						13FA-2/2 Bird 1 13FB-1 GF 2/2 RFB-3/2 WT - 1



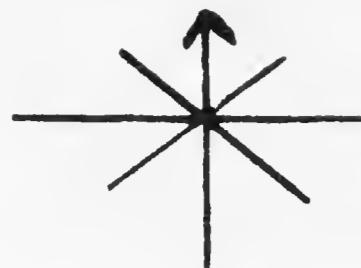
DATE 5-4
Pg. # 1

time	species	#	dir.	hgt.	remarks	loc.
0915	ST	3				
0940	ST	1				
0950	ST	1				
1015	ST	2				
2020	ST	1				
2030	ST	3				
2040	ST	1				
2042	ST	1				
2050	ST	2				
2105	ST	3				
2226		2-3	↗		WA, followed by 2 nd bid with yips	
2244		1	○		WA	
2245		1			WT WT - yip - yip - scream	
2247		2	N?			
2300		2	→		WA's	
2305	Gray back Tern	1			By call - single cry	
1105	Sooty	3-4			off port - circling?	
2314	"	2-3			off stb, possibly same as preceding	
2316		1-2			yips	
2320		1			far off stb - yip	
2323		1				
2327		1	→		WT	
2333		2-3			off stb	
2337		1-2			yips	
2343		1	↓		along port - visible - loud yip, 2 loud WT	
2346		1	→			
2347-2400					Break	
0003	ST	3-4	→			
0012		1				
0020		1			off port	
0022		1			off stern	
0023		1			instant	



DATE Feb 5-6
Pg. # 6

time	species	#	dir.	hgt.	remarks	loc.
0026	ST	1				
0038		2			off stb stem	
0035		1	→			
0036		3-4	→			
0046		3			WA'S	
0046		1				
0048		2-3	↑			
0055		3			Separated	
0100		2-3			same ones as above?	
0125		1				
0127		2			Not together	
0128		2			Together - visible off stb - yips	
0130		1			single call	
0131		2			Separate but seem to be calling back & forth	
0135		2-3			off stem	
0146		1				19-20 5/3
0142		1				20-21 10/4
0145		1				21-22 3/1
0158		1				22-23 6-7/4
0159	"	1				23-24 16-22/12
0240	SOOTY TERN	2-4				24-01 23-26/13
0245	" "	1-2				01-02 17-19/12
0340	" "	1-2				02-03 3-6/2
0345	" "	1-2				03-04 3-5/2
0345	TROPIC BIRD	2-3				04-05 4-5/1
0345		1				05-06 2/2
0450	SOOTY TERN	4-5				
0500	" "	1				
0520	"					
0622	black-ft. Alb.	1	②			
0633	sm. PETREL	1	↓	low	-Probable Cook's - typical flight but poor light.	



DATE 6 FEB 65
Pg. # 1

time	species	#	dir.	hgt.	remarks	loc.
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0645					SUNRISE	
0645	Black-ft. Alb.	1	O			
0700	Red-ft. Booby	1				
0727	Red-H. Tropic	1	O			
0740	WEDGE-TAIL SH.	1				
0910-0915					- 1 min. All brown above, dark breast band, dark bill. Came aboard on VP rack. Still present 0850. Not seen again.	
1100	Bl. Foot. Alb.	1			- Albatross not in sight	
~1000-1100					- joined first - latter around continuously	
~1300-1330					- slow to 1 knot - checking engine speed?	
~1330-1500					- smoke flame over, two runs.	
1616	Sh. Pet	1			- slow to 1 knot again	
1722	FAIRY TERN	1	O		Wedge-tail pattern but fast flight, quick turns	
1750					Boobies and Petrels com - distant	
1821					- whale ahead	
					- sunset Albatross still following	

BFA 2/2

RFB 1

RTT 1

WT5 1

Sh-P 1

FT 1

Total 7/7

0641-0744

0745-0844

0841-0944



DATE Feb 6-7, 1965
Pg. # 7

time	species	#	dir.	hgt.	remarks	loc.
1845	Cook - Bonin Type	1	NE		100 yds off port; very little black under wing, like J. F. or Wh-N., but small	
2024	ST	1				
2105	"	1				
2330					— COURSE CHANGE TO SHORT LEG.	
0015	SOOTY TERN	1-2			(a)	
0245	ST	1				
0300	ST	2			Turn about 0400	
0315	ST	1				
0415	ST	1				
0515	ST	1				



DATE 7- Feb- 65
Pg. # _____

time	species	#	dir.	hgt.	remarks	loc.
0725	Shor. Petrel	1			0630 ± sunrise	
1128	Leach's	1	N		too far out for Id. flew like a Wedgetail	
1645	JFP	1	→ NE			
1700	JFP	1	SW		Probably same as above	
1816	Mottled Petrel?	1	W		Bonin size, not as chunky, dark above, and on throat?, light below this, then grayish again, underwings mostly darkish (brownish,?) very fast flight with much low flapping in troughs	
					0632 - 0752	



DATE Feb. 8, 1965
Pg. # 1

time	species	#	dir.	hgt.	remarks	loc.
1910	Booby	1			- PROBABLE RED-Foot - Report R AINY.	
0100	ST	1				
0640	Shear-Pet	1			Glimpsed once	
0640	R.F. Booby	1			Imm. - dark, breast band, bill orange feet, dark bill	
0645					Sunrise [riding main mast; got off 0135, flew around ~5 min, then left to N	
0700					- COURSE CHANGE TO ^{SWART LEG.}	
0922	0947-1017				Left (S) & back Fly ^{maneuvers}	
1003	WHITE-t. Tropic	1			0947-1150 - Fly's Maneuvers	
1150	TROPICBIRD	1				
1224	W.T. Tropic	1			PROBABLE WHITE-TAILED. (Without caudal APPENDAGE)	
0815	RFB	1			Same as above? (tucked)	
1410	WTB	1				
1628	Tropicbird	3			Reported by Farney from bridge	
1650	WTB	1				
1718	Frigate	1	③		♂	
1748	RF(B)Booby	1			Below Frigate - Imm. ♂ chasing flying fish along surface -	
	Brown n.	1			Ad.	
	Tern sp.	1			Not sooty?	
1500					- COURSE CHANGE TO NE	
1822					- Sunset & green flash	
					0646 0746 0846 0946 0946 1046 1046 1146	RFB - 3/3
						WTB - 4/4
						T - 2/2
						F - 1
						BB - 1
						T - 1

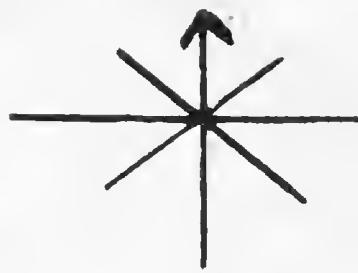


DATE FEB 8-9
Pg. # 2 -1

time	species	#	dir.	hgt.	remarks	loc.
1840	RFB	1				
1910	ST	1				
1915	ST	2				
2018	ST	1				
2115	ST	1				
2230	ST	1				
2324	"	1-2			Stb Johnston lights in view as slow 2100 - towers now visible circling ship	
0035					Moonset	
0115						
0129	ST	2				
0330	TROPIC.	2		②		
0440	"	2		②		
0440	ST	2-3			- SAME AS PREVIOUS ENTRY PROBABLY.	
0500					SHIP STOPPED - APPARENTLY HAS BEEN FOR SOME TIME.	
0555	BFA	1		②		
0600					SHIP STILL DEAD IN WATER..	
0633	R.F. Booby	1		②		
0639	BFA	1		②	- 1 mm.	
0640	Sooty TERN	1		②	TOTAL 2	
0646					600	SUNRISE

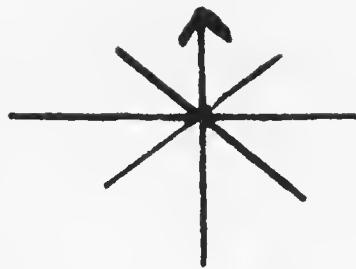
19-20	3/2
20-21	1
21-22	1
22-23	1
23-24	1-2/1
24-01	0
01-02	2/1
02-03	0
03-04	0
04-05	2-3/1
05-06	0

11 3-13/8



DATE 9 FEB 65
Pg. # 1

time	species	#	dir.	hgt.	remarks	loc.
0646					- SUNRISE	- SHIP DEAD IN WATER
0646	B.F.A.	2	O			WAITING HELICOPTER FROM
0646	RFB	1	O			JOHNSTON WITH SICK SAILOR
0648	RFB	3			down.	
0650	RFB	1			Ad.	
0650	RFB	1			down	
0652	RFB	1			Ad	
0652	RFB	2			2mn. in Area	
P 0652	Sooty Tern	40±5			on horizon	
F 0655	RFB	9	E		String of 7 headed east + 2 behind us	
0655	Sooty Tern	?			Numbers scattered along horizon	
F 0700	Sooty Tern	12	E		String of pairs	
F 0707	RFB	9	E		String	
0715					Underway, helo made 3 landings in	
0717					4-5 min.	
0740	Booby sp.	2	N-NE		Ship dead in water - hot bearing	
0745	RFB	1			2+ mi off port - prob. RF	
F 0755	Sooty Tern	8	NE		Ad.	
FF 0815	" "	95±10			String Underway	
	R.F. Booby	38±4			3 No fish seen	
	G.Frigate	4				
0924	RF Booby	1	NE		down - light brown, pale bill	
1017	" "	1			" " " " " - same?	
	G.Frigate	2				
1020	G.Frigate	1	O		down. over booby	
1045	" "	1			♂ - also diving, alone	
1052	Sooty Tern	1			♀ - chasing flying fish	
F 1114	" "	100±25			distant	
	Booby sp.	5+				
1215	G.Frigate	1			down. following	
1242	STORM PETREL	1	NE	LOW	- HARCOURT'S OR Leach's	
1247	RF Booby	1				
1330	RFB	1			down, appears same as 0924	
					1 1/2 mi - ad.	
1339	Frigate	2	-			
1413	R.F. Booby	1			adult	
1520	FRIGATE	3	-	LOW	- DISTANT	



DATE 9 FEB 65
Pg. # 2

time	species	#	dir.	hgt.	remarks	loc.
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1650	RFB	1				
1740	Booby	1	O	low	- TOO DISTANT & POOR LIGHT for Identification	
1800	BFA	1	O	following	- PROBABLY DIFFERENT BIRD THAN FARTHER	
1812					SUNSET!	

BFA - 2/1
 RFB - 72/16
 ST - 236/7
 Booby - 8/3
 GF - 14/7
 SP - 1



DATE Feb 10, 1965
Pg. # 1

time species # dir. hgt. remarks loc.

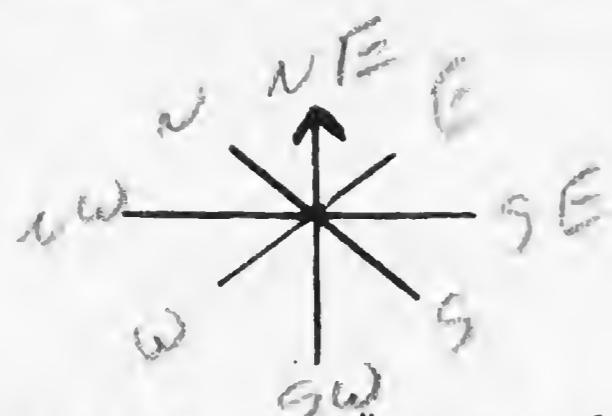
0625					- Begin observations	
0635					Sunrise	
0635	Black T. Alb.	2				
0650					Wrab, far out	
0653	Tropicbird	1			Distant & high	
0700	BF Alb.	1				
0800					2 BFA following	
1330	B.F. Albatross	1			2 following	
1450	Sooty Tern	3	L			
1540	Sooty Tern	1				
1650	Frigate	1				
1756					SUNSET! Albatross not present	

BFA - 4/3

T1 - 1

ST - 4/2

F - 1



DATE Feb. 11, 1965
Pg. # 1

time	species	#	dir.	hgt.	remarks	loc.
0715					Begin observations	
0718					Sunrise	
0734	Sooty Tern	1	→			
0734	Bl. F. Albatross	1			Not seen after 0900	
0735	Sooty Tern	2	←			
0958	R.F.B	1	○		- Imm.	
1046	BFB	1	↓		AD	
1148	G.Frigate	1	○		♂?	
F 1235	Sooty Tern	11				
	Fairy Tern	7				
1308	Booby sp.	2	low		2 1/2 - 3 mi off ast - PROBABLE MASKED (♂?)	
1333	FRIGATE	1	○		- DISTANT	
F 1415	Sooty Tern	4	↓			
	Fairy Tern	11				
1420	FAIRY TERN	1				
1420	" "	2			Display flight? - Pair started low, climbed steadily in several steps, one bird above the other, folding the wings into a delta shape at the "rest" stage.	
1500	Bl. F. Albatross	1				
1511	Sooty Tern	1			Ahead	
1511	Bird Sooty Tern	1			Reported far off ast from bridge (Rainey)	
1526	Booby	1	←	low		
1627	Tern sp.	2			Sooty or G.B - dark above, light below, but	
1627	to	5	○		small, very fast whale	
1630	Sooty Tern	1	→			
1650	BFA	1			2 total behind ship now	
F 1720	Sooty Tern	5				
	Fairy Tern	9	↓			
1740	BFA	1			TOTAL 3	
1810	R.F. Booby	1			Imm - All dark above + most breast, pale blue-gray bill	
1843					Sunset	
					BFA - 4/4	
					ST 26/8	
					RFB 2/2	
					BFB 1	
					G-F 2/2	
					FT 30/5	
					Booby 3/2	
					Tern 2/1	

T. 78/22



DATE 12 FEB 65
Pg. # 1

AT SEA DAILY LOG -- B

DATE 7 FEB 1965

Time at sunrise = Position at sunrise = 0652^{W} , $12^{\circ}42'N$ $171^{\circ}34'W$

Time at sunset = Position at sunset = 1824 on $13^{\circ}01'N$ $170^{\circ}37'W$

Miles traveled from 0000 hours to sunrise = 48 mi

Miles traveled from sunrise to sunset = 92 mi

Miles traveled from sunset to 2400 hours = 45 mi

	TIME OF FIX	TYPE OF FIX	LONGITUDE	LATITUDE
1.	0627	CELESTIAL	$171-37^{\text{W}}$	$12-38.5^{\text{N}}$
2.	1200	LORAN; CELESTIAL	$171-12^{\text{W}}$	$13-13^{\text{N}}$
3.	1610	SUN & LORAN	$170-49^{\text{W}}$	$13-32.5^{\text{N}}$
4.	1850	CELESTIAL	$170-34^{\text{W}}$	$13-25.5^{\text{N}}$
5.				
6.				

DATE 8 FEB 1965

Time at sunrise = Position at sunrise = $0646X$ $168-23^{\text{W}}$ $15-12.5^{\text{N}}$

Time at sunset = Position at sunset = $1822X$ $170-30^{\text{W}}$ $16-15^{\text{N}}$

Miles traveled from 0000 hours to sunrise = 64 mi

Miles traveled from sunrise to sunset = 94 mi , 93

Miles traveled from sunset to 2400 hours = 49

	TIME OF FIX	TYPE OF FIX	LONGITUDE	LATITUDE
1.	0630	CELESTIAL	$169-25.5^{\text{W}}$	$15-11^{\text{N}}$
2.	0930	SUN & LORAN	$169-42^{\text{W}}$	$15-28^{\text{N}}$
3.	1315	LORAN & LORAN	$169-47^{\text{W}}$	$15-36.5^{\text{N}}$
4.	1635	SUN & LORAN	$170-16.2^{\text{W}}$	$15-27$
5.	1847	CELESTIAL	$170-18$	$16-16$
6.				

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AT SEA DAILY LOG -- B

DATE 9 FEB 1965

Time at sunrise = Position at sunrise = 0645 16° 40' 161° 14'

Time at sunset = Position at sunset = 1530 167° 53' 17° 15'

Miles traveled from 0000 hours to sunrise = 28 mi

Miles traveled from sunrise to sunset = ~~52~~ 82

Miles traveled from sunset to 2400 hours =

	TIME OF FIX	TYPE OF FIX	LONGITUDE	LATITUDE
1.	0821	CONVENTIONAL	169° 12'	16° 45'
2.	1117	CONVENTIONAL	168° 48'	16° 51'
3.	1817	CONVENTIONAL	168° 44'	17° 15'
4.	1830	CONVENTIONAL	168° 35'	17° 14'
5.				
6.				

DATE 10 FEB 1965

Time at sunrise = Position at sunrise = 0636 16° 46' 161° 15'

Time at sunset = Position at sunset = 1501 165° 51' 16° 34'

Miles traveled from 0000 hours to sunrise =

Miles traveled from sunrise to sunset =

Miles traveled from sunset to 2400 hours =

	TIME OF FIX	TYPE OF FIX	LONGITUDE	LATITUDE
1.	0603	CONVENTIONAL	169° 15'	16° 46'
2.	1105	CONVENTIONAL	168° 43'	16° 41'
3.	1803	CONVENTIONAL	168° 33'	16° 37'
4.	1805	CONVENTIONAL	168° 31'	16° 33'
5.				
6.				

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AT SEA DAILY LOG -- B

DATE 11 FEB 1965

Time at sunrise = Position at sunrise =

Time at sunset = Position at sunset =

Miles traveled from 0000 hours to sunrise =

Miles traveled from sunrise to sunset =

Miles traveled from sunset to 2400 hours =

	TIME OF FIX	TYPE OF FIX	LONGITUDE	LATITUDE
1.	0657	CELESTIAL	162°59'	19°12'
2.	1130	LOCATOR	169°01'	9°52'
3.	0800	CELESTIAL	161°08'	8°00'
4.				7°32'
5.				
6.				

DATE 12 FEB 1965

Time at sunrise = Position at sunrise =

Time at sunset = Position at sunset =

Miles traveled from 0000 hours to sunrise =

Miles traveled from sunrise to sunset =

Miles traveled from sunset to 2400 hours =

	TIME OF FIX	TYPE OF FIX	LONGITUDE	LATITUDE
1.	0645	CELESTIAL	169°01'	20°26'
2.				
3.				
4.				
5.				
6.				

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SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY OBSERVATIONS SUMMARY

DATE: February 9, 1965 Total Minutes: 687 (0645-1812) Total Miles 82

I. Total Abundance of birds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>31</u>	<u>353</u>	<u>11.39</u>	<u>4.30</u>

II. Abundance of the Shearwater-Petrel-Albatross Group:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	WT	P	B	T	WT	P	B	T	WT	P	B	T	WT	P	B
<u>2</u>				<u>3</u>				<u>1.5</u>				<u>0.04</u>			

III. Abundance of Tropicbirds:

No. Sightings			No. Birds			Birds/Sighting			Birds/Mile		
T	RT	WT	T	RT	WT	T	RT	WT	T	RT	WT
<u>0</u>											

IV. Abundance of Terns:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>7</u>	<u>256</u>	<u>36.56</u>	<u>3.12</u>

V. Abundance of Shorebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>0</u>			

VI. Abundance of Boobys:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	BF	RF	B	T	BF	RF	B	T	BF	RF	B	T	BF	RF	B
<u>19</u>	<u>-</u>	<u>16</u>	<u>-</u>	<u>80</u>	<u>-</u>	<u>72</u>	<u>-</u>	<u>4.21</u>	<u>-</u>	<u>4.50</u>	<u>-</u>	<u>0.98</u>	<u>-</u>	<u>0.88</u>	<u>-</u>

VII. Abundance of Frigatebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
<u>7</u>	<u>14</u>	<u>2</u>	<u>0.17</u>

VIII. Abundance of Flocks:

Total No. Flocks	Total No. Birds	Total No. F/Mi.	No. Feeding Flocks	No. Feeding Birds	No. Feeding F/MI.
<u>7</u>	<u>320</u>	<u>0.09</u>	<u>1</u>	<u>137</u>	<u>0.01</u>

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SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY OBSERVATIONS SUMMARY

DATE: February 10, 1965 Total Minutes: 685 (0636-1801) Total Miles 97

I. Total Abundance of birds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
7	10	1.	0.10

II. Abundance of the Shearwater-Petrel-Albatross Group:

No. Sightings				No. Birds				Birds/Sighting			Birds/Mile				
T	WT	P	B	T	WT	P	B	T	WT	P	B	T	WT	P	B
3	-	-	-	4	-	-	-	1.33	-	-	-	0.04			

III. Abundance of Tropicbirds:

No. Sightings			No. Birds			Birds/Sighting			Birds/Mile						
T	RT	WT	T	RT	WT	T	RT	WT	T	RT	WT	T	RT	WT	
1	-	-	1	-	-	1	-	-	0.01						

IV. Abundance of Terns:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
2	4	2.00	0.04

V. Abundance of Shorebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
0			

VI. Abundance of Boobys:

No. Sightings				No. Birds				Birds/Sighting			Birds/Mile				
T	BF	RF	B	T	BF	RF	B	T	BF	RF	B	T	BF	RF	B
0															

VII. Abundance of Frigatebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
1	1	1	0.01

VIII. Abundance of Flocks:

Total No. Flocks	Total No. Birds	Total No. F/Mi.	No. Feeding Flocks	No. Feeding Birds	No. Feeding F/MI.
0					

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SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY OBSERVATIONS SUMMARY

DATE: February 11, 1965 Total Minutes: 678 (0723-1841) Total Miles 107

I. Total Abundance of birds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
22	70	3.18	0.65

II. Abundance of the Shearwater-Petrel-Albatross Group:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	WT	P	B	T	WT	P	B	T	WT	P	B	T	WT	P	B
4	-	-	4	-	-	-	-	1	-	-	-	0	0	0	0.04

III. Abundance of Tropicbirds:

No. Sightings			No. Birds			Birds/Sighting			Birds/Mile		
T	RT	WT	T	RT	WT	T	RT	WT	T	RT	WT
0											

IV. Abundance of Terns:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
11	58	5.27	0.54

V. Abundance of Shorebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
0			

VI. Abundance of Boobys:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	BF	RF	B	T	BF	RF	B	T	BF	RF	B	T	BF	RF	B
4	1	2	-	5	1	2	-	1.25	1	1	-	0.05	0.01	0.02	-

VII. Abundance of Frigatebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
2	2	1	0.02

VIII. Abundance of Flocks:

Total No. Flocks	Total No. Birds	Total No. F/Mi.	No. Feeding Flocks	No. Feeding Birds	No. Feeding F/MI.
3	47	0.03	0		

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DIVISION OF BIRDS
AT SEA DAILY OBSERVATIONS SUMMARY

DATE: Feb. 12, 1965 Total Minutes: 533 (0707-1600) Total Miles 86

I. Total Abundance of birds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
26	48	1.85	0.56

II. Abundance of the Shearwater-Petrel-Albatross Group:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	WT	P	B	T	WT	P	B	T	WT	P	B	T	WT	P	B
10	-	-	-	25	-	-	-	2.50	-	-	-	0.29	-	-	-

III. Abundance of Tropicbirds:

No. Sightings			No. Birds			Birds/Sighting			Birds/Mile		
T	RT	WT	T	RT	WT	T	RT	WT	T	RT	WT
2			2			1			0.02		

IV. Abundance of Terns:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
6	11	1.83	0.13

V. Abundance of Shorebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
0			

VI. Abundance of Boobys:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	BF	RF	B	T	BF	RF	B	T	BF	RF	B	T	BF	RF	B
-	3	-	-	3	-	-	-	1	-	-	-	0.03	-	-	-

VII. Abundance of Frigatebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
1	1	1	0.01

VIII. Abundance of Flocks:

Total No. Flocks	Total No. Birds	Total No. F/Mi.	No. Feeding Flocks	No. Feeding Birds	No. Feeding F/MI.

0

1 1030 - 1826
2 0708 - 1852
3 0727 - 1756
Check 4 0639 - 1816
5 0646 - 1815
6 0644 - 1827
7 0652 - 1824
8 0646 - 1822

$$\begin{array}{r}
 291 \\
 \times 16 \\
 \hline
 18 \\
 220 \\
 \hline
 48 \\
 220 \\
 \hline
 148 \\
 \hline
 1.84
 \end{array}$$

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SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY OBSERVATIONS SUMMARY

DATE: Feb. 1, 1965 Total Minutes: 474 (1030-1826) Total Miles 65

I. Total Abundance of birds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
24	142	5.92	2.18

II. Abundance of the Shearwater-Petrel-Albatross Group:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	WT	P	B	T	WT	P	B	T	WT	P	B	T	WT	P	B
8	-	-	-	21	-	-	-	2.63	-	-	-	0.32			

III. Abundance of Tropicbirds:

No. Sightings			No. Birds			Birds/Sighting			Birds/Mile		
T	RT	WT	T	RT	WT	T	RT	WT	T	RT	WT
	1			1			1			0.02	

IV. Abundance of Terns:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
4	73	23.25	1.43

V. Abundance of Shorebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
0			

VI. Abundance of Boobys:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	BF	RF	B	T	BF	RF	B	T	BF	RF	B	T	BF	RF	B
4	-	2	1	5	-	3	1	1.25	-	1.50	1	0.08	-	0.05	0.02

VII. Abundance of Frigatebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
0			

VIII. Abundance of Flocks:

Total No. Flocks	Total No. Birds	Total No. F/Mi.	No. Feeding Flocks	No. Feeding Birds	No. Feeding F/MI.
2	102	0.04	0		

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SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY OBSERVATIONS SUMMARY

DATE: February 2, 1965

Total Minutes: 644 (0708-1852) Total Miles 87

I. Total Abundance of birds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
27	97	3.52	1.11

II. Abundance of the Shearwater-Petrel-Albatross Group:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	WT	P	B	T	WT	P	B	T	WT	P	B	T	WT	P	B
27	—	—	24	—	—	—	—	2.40	—	—	—	0.28	—	—	—

III. Abundance of Tropicbirds:

No. Sightings			No. Birds			Birds/Sighting			Birds/Mile		
T	RT	WT	T	RT	WT	T	RT	WT	T	RT	WT
3			3			1			0.03		

IV. Abundance of Terns:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
11	63	5.73	0.72

V. Abundance of Shorebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
0			

VI. Abundance of Boobys:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	BF	RF	B	T	BF	RF	B	T	BF	RF	B	T	BF	RF	B
5	1	4	—	7	1	6	—	1.40	1	1.50	—	0.08	0.01	0.07	—

VII. Abundance of Frigatebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
0			

VIII. Abundance of Flocks:

Total No. Flocks	Total No. Birds	Total No. F/Mi.	No. Feeding Flocks	No. Feeding Birds	No. Feeding F/MI.
3	50	0.03	0		

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SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY OBSERVATIONS SUMMARY

DATE: Feb. 3, 1965

Total Minutes: 623 (0727-1856) Total Miles 91

I. Total Abundance of birds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
13	29	2.23	0.32

II. Abundance of the Shearwater-Petrel-Albatross Group:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	WT	P	B	T	WT	P	B	T	WT	P	B	T	WT	P	B
6	—	—	12	—	—	—	—	2	—	—	—	0.13			

III. Abundance of Tropicbirds:

No. Sightings			No. Birds			Birds/Sighting			Birds/Mile		
T	RT	WT	T	RT	WT	T	RT	WT	T	RT	WT
0											

IV. Abundance of Terns:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
3	13	4.67	0.14

V. Abundance of Shorebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
1	1	1	0.01

VI. Abundance of Boobys:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	BF	RF	B	T	BF	RF	B	T	BF	RF	B	T	BF	RF	B
3	2	1	—	3	2	1	—	1	1	1	—	0.03	0.02	0.01	—

VII. Abundance of Frigatebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
0			

VIII. Abundance of Flocks:

Total No. Flocks	Total No. Birds	Total No. F/Mi.	No. Feeding Flocks	No. Feeding Birds	No. Feeding F/MI.

0

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SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY OBSERVATIONS SUMMARY

DATE: Feb. 4, 1965 Total Minutes: 687 (06 39-1816) Total Miles 115

I. Total Abundance of birds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
35	8593	237.26	0.72 0.81

II. Abundance of the Shearwater-Petrel-Albatross Group:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	WT	P	B	T	WT	P	B	T	WT	P	B	T	WT	P	B
9	-	-	-	25	-	-	-	2.78	-	-	-	0.22			

III. Abundance of Tropicbirds:

No. Sightings			No. Birds			Birds/Sighting			Birds/Mile		
T	RT	WT	T	RT	WT	T	RT	WT	T	RT	WT
0											

IV. Abundance of Terns:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
4	59	14.75	0.51

V. Abundance of Shorebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
0			

VI. Abundance of Boobys:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	BF	RF	B	T	BF	RF	B	T	BF	RF	B	T	BF	RF	B
2				2				1				0.02			

VII. Abundance of Frigatebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
7	7	1	0.06

VIII. Abundance of Flocks:

Total No. Flocks	Total No. Birds	Total No. F/Mi.	No. Feeding Flocks	No. Feeding Birds	No. Feeding F/MI.
2	57	2.02	0		

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SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY OBSERVATIONS SUMMARY

DATE: Feb. 5, 1965

Total Minutes: 689 (0646-1815)

Total Miles 95

I. Total Abundance of birds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
9	10	1.11	0.11

II. Abundance of the Shearwater-Petrel-Albatross Group:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	WT	P	B	T	WT	P	B	T	WT	P	B	T	WT	P	B
2	-	-	-	2	-	-	-	1	-	-	-	0.02			

III. Abundance of Tropicbirds:

No. Sightings			No. Birds			Birds/Sighting			Birds/Mile		
T	RT	WT	T	RT	WT	T	RT	WT	T	RT	WT
	1			1			1		0.01		

IV. Abundance of Terns:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
0			

V. Abundance of Shorebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
0			

VI. Abundance of Boobys:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	BF	RF	B	T	BF	RF	B	T	BF	RF	B	T	BF	RF	B
3	1	2	-	4	1	3	-	1.00	1.50	-	0.04	0.01	0.03	-	
								1.33							

VII. Abundance of Frigatebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
2	2	1	0.02

VIII. Abundance of Flocks:

Total No. Flocks	Total No. Birds	Total No. F/Mi.	No. Feeding Flocks	No. Feeding Birds	No. Feeding F/MI.
0					

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SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY OBSERVATIONS SUMMARY

DATE: Feb. 6, 1965 Total Minutes: 703 (0644-1827) Total Miles 90

I. Total Abundance of birds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
7	7	1	0.08

II. Abundance of the Shearwater-Petrel-Albatross Group:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	WT	P	B	T	WT	P	B	T	WT	P	B	T	WT	P	B
4	1	-	-	4	1	-	-	1	1	-	-	0.04	0.01	-	-

III. Abundance of Tropicbirds:

No. Sightings			No. Birds			Birds/Sighting			Birds/Mile		
T	RT	WT	T	RT	WT	T	RT	WT	T	RT	WT
1			1			1			0.01		

IV. Abundance of Terns:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
1	1	1	0.01

V. Abundance of Shorebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
0			

VI. Abundance of Boobys:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	BF	RF	B	T	BF	RF	B	T	BF	RF	B	T	BF	RF	B
1				1				1				0.01			

VII. Abundance of Frigatebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
0			

VIII. Abundance of Flocks:

Total No. Flocks	Total No. Birds	Total No. F/Mi.	No. Feeding Flocks	No. Feeding Birds	No. Feeding F/MI.

0

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DIVISION OF BIRDS
AT SEA DAILY OBSERVATIONS SUMMARY

DATE: Feb. 7, 1965 Total Minutes: 692 (0652-1824) Total Miles 92

I. Total Abundance of birds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
5	5	1	0.05

II. Abundance of the Shearwater-Petrel-Albatross Group:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	WT	P	B	T	WT	P	B	T	WT	P	B	T	WT	P	B
5	?	/	-	5	?	/	-	1	?	1	-	0.05	0.01	-	

III. Abundance of Tropicbirds:

No. Sightings			No. Birds			Birds/Sighting			Birds/Mile		
T	RT	WT	T	RT	WT	T	RT	WT	T	RT	WT
0											

IV. Abundance of Terns:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
0			

V. Abundance of Shorebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
0			

VI. Abundance of Boobys:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	BF	RF	B	T	BF	RF	B	T	BF	RF	B	T	BF	RF	B
0															

VII. Abundance of Frigatebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
0			

VIII. Abundance of Flocks:

Total No. Flocks	Total No. Birds	Total No. F/Mi.	No. Feeding Flocks	No. Feeding Birds	No. Feeding F/MI.

0

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SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY OBSERVATIONS SUMMARY

DATE: February 8, 1965 Total Minutes: 296 (0646 - 1822) Total Miles 93

I. Total Abundance of birds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
80	12	1.20	0.13

II. Abundance of the Shearwater-Petrel-Albatross Group:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	WT	P	B	T	WT	P	B	T	WT	P	B	T	WT	P	B
0															

III. Abundance of Tropicbirds:

No. Sightings			No. Birds			Birds/Sighting			Birds/Mile		
T	RT	WT	T	RT	WT	T	RT	WT	T	RT	WT
6	-	4	6	-	4	1	-	1	0.06	-	0.04

IV. Abundance of Terns:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
1	1	1	0.01

V. Abundance of Shorebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
0			

VI. Abundance of Boobys:

No. Sightings				No. Birds				Birds/Sighting				Birds/Mile			
T	BF	RF	B	T	BF	RF	B	T	BF	RF	B	T	BF	RF	B
3	-	3	1	4	-	3	1	1.33	-	1	1	0.04	-	0.03	0.01

VII. Abundance of Frigatebirds:

No. Sightings	No. Birds	Birds/Sighting	Birds/Mile
1	1	1	0.01

VIII. Abundance of Flocks:

Total No. Flocks	Total No. Birds	Total No. F/Mi.	No. Feeding Flocks	No. Feeding Birds	No. Feeding F/MI.

0

MONTHLY REPORT OF AT-SEA SURVEY

FEBRUARY

NORTHERN GRID SURVEY NO. 19

February 6-8, 1965

PACIFIC OCEAN BIOLOGICAL SURVEY

This report is based on the results and observations made during the nineteenth of a monthly series of investigations of the flora and fauna in a particular study area of the Central Pacific Ocean. Observations covered a period of twelve days, 1 - 12 February, 1965. The area investigated was the same as last month except that only the first one-third of the grid was covered.

Three members of the Smithsonian Institution Pacific Biological Survey Program participated in the survey, Ken Amerman (Biologist in Charge), Dale Ilsted, and Douglas Whitman.

The trip consisted solely of observations, collecting not being attempted due to a lack of available time.

TIME AND MILEAGE OF DIURNAL OBSERVATIONS OUTSIDE THE GRID

Date	Total Miles Covered	Total Hours Spent
01	65	7.7
02	87	11.6
03	91	10.5
04	115	11.6
05	95	11.5
09	82	11.5
10	97	11.6
11	107	11.3
12	not available	8.9
Total	739	96.2

TIME AND MILEAGE OF DIURNAL OBSERVATIONS INSIDE THE GRID

Date	Total miles Covered	Total Hours Spent
06	90	11.7
07	92	11.5
08	93	11.6
Total	275	34.8

SPECIES ACCOUNT

A total of 15 species was identified on this trip. Ten species were found within the grid and 12 outside it.

An average of 5.6 species per day was found outside the grid and only 3.7 within the grid.

Laysan Albatross (Diomedea immutabilis)

A total of four birds were identified all within one day of Oahu. None were found within the grid area.

Black-footed Albatross (Diomedea nigripes)

A total of 74 birds (minimum value) were observed, two within the grid area. They were most abundant near Oahu, although a large number were found near Sand-Johnston Atoll.

Wedge-tailed Shearwater (Puffinus pacificus)

Only one individual was identified and this was within the grid area.

Juan Fernandez Petrel (Pterodroma externa externa)

Only two individuals were observed, both within the grid area.

Leach's or Harcourt's Storm Petrel (Oceanodroma leucorhoa or castro)

A total of three individuals were recorded, one within the grid and two outside it.

Red-tailed Tropicbird (Phaethon rubricauda)

Only one individual was reported, this being within the grid area.

White-tailed Tropicbird (P. aethon lepturus)

A total of eleven birds, four inside and seven outside the grid, were recorded this month.

Blue-faced Booby (Sula dactylatra)

A total of five individuals were recorded, all outside the grid area.

Red-footed Booby (Sula sula)

Of the total of 96 individuals the vast majority were found near Sand-Johnston Atoll. Only four were found within the grid area.

Brown Booby (Sula leucogaster)

A total of three individuals were observed, two near Oahu and one within the grid area.

Great Frigatebird (Fregata minor)

Of the total of 27 individuals most were near Sand-Johnston Atoll. Only one bird was observed within the grid area.

Sooty Tern (Sterna fuscata)

A total of 488 individuals were recorded. All of these were found outside the grid area, most being near Sand-Johnston Atoll. Although no birds were found within the grid during the day time, a large number were heard and seen flying over the ship at night within this area.

Common Noddy Tern (Anous stolidus)

A total of five individuals were found near Oahu. None were observed within the grid area.

Fairy Tern (Gygis alba)

A total of 53 individuals were recorded, most of which were about 250 Southwest of Oahu. One individual was recorded within the grid.

Pomarine Jaeger (Stercorarius pomarinus)

A minimum of 16 individuals were recorded all within one day of Oahu.

DIURNAL ABUNDANCE OF SPECIES GROUPS WITHIN THE GRID 

<u>Species Group</u>	<u>No. Birds</u>	<u>Birds/Sq. Mile</u>	<u>Estimated Population</u>	<u>Percent total Birds</u>
Shearwater-Petrel	9	0.02	800	36
Tern	2	0.002	100	08
Boobies	5	0.01	450	20
Tropicbirds	7	0.01	600	28
Frigatebirds	1	0.001	50	04
Storm Petrels	1	0.004	150	04
Total	25		2,150*	

DIURNAL ABUNDANCE OF SPECIES GROUPS OUTSIDE THE GRID 

<u>Species Group</u>	<u>No. Birds</u>	<u>Birds/Sq. Mile</u>	<u>Estimated Population</u>	<u>Percent total Birds</u>
Shearwater-Petrel	61	0.04	2,000	08
Terns	526	0.24	11,800	70
Boobies	109	0.07	3,700	15
Tropicbirds	6	0.005	200	01
Frigatebirds	26	0.01	450	03
Storm Petrels	2	0.003	100	< 01
Total	749		18,500*	

DIURNAL ABUNDANCE OF BIRDS

<u>Date</u>	<u>No. Birds</u>	<u>No. Species</u>
01	137	8
02	90	7
03	23	4
04	80	5
05	9	5
06	7	5
07	5	2
08	13	4
09	333	5
10	8	3
11	69	6
12	46	7

Night observations were carried out from the evening of 4 February through the morning of 9 February.

Nocturnal Abundance of Birds

<u>Date</u>	<u>Species</u>	<u>No. Birds</u>	<u>Remarks</u>
04	Sooty Tern	141	Near Johnston Atoll " " "
	Tropicbirds	10	
05	Sooty Tern	91	Identified by call
	Grey-backed Tern	1	
	Tropicbirds	2	
06	Sooty Tern	58	0622 hours 0633 hours 1845 hours
	Tropicbirds	2	
	Black-footed Albatross	1	
	Petrel	1	
	Petrel	1	
	Sooty Tern	8	
07	Red-footed Booby	1	1840 hours
08	Sooty Terns	8	
09	Sooty Tern	6	0555 hours 0639 hours
	Tropicbirds	4	
	Black-footed Albatross	1	
	Black-footed Albatross	1	
	Red-footed Booby	1	

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SMITHSONIAN INSTITUTION
DIVISION OF BIRDS

AT SEA DAILY LOG -- B

DATE 7 FEB 1965

Time at sunrise = Position at sunrise = ~~IN PORT~~ PEARL

Time at sunset = Position at sunset = 1826 15845W 2046N

Miles traveled from 0000 hours to sunrise = ~~IN PORT~~

Miles traveled from ^{IN PORT} sunrise to sunset = ~~55~~ MILES 65

Miles traveled from sunset to 2400 hours = 42 MILES

TIME OF FIX	TYPE OF FIX	LONGITUDE W	LATITUDE N
1. 1200	VISHAK	108 00.5	21 08.5
2. 1302	VISHAK	108 04.5	21 01.5
3. 1433	LOTRAN	108 14.5	21 01
4. 2012	LOTRAN	108 37.5	20 40
5.			
6.			

DATE 7 FEB 1965

Time at sunrise = Position at sunrise = 0620117 16025.2W 2013.5N

Time at sunset = Position at sunset = 1837 16156.5W 1940

Miles traveled from 0000 hours to sunrise = 57 MILES

Miles traveled from sunrise to sunset = 87 "

Miles traveled from sunset to 2400 hours = 51 "

TIME OF FIX	TYPE OF FIX	LONGITUDE	LATITUDE
1. 0705	LOTRAN	160 24	20 14
2. 1130	LOTRAN	160 58.5	20 01
3. 1919	LOTRAN	161 56	19 38
4.			"
5.			
6.			

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SMITHSONIAN INSTITUTION
DIVISION OF BIRDS

AT SEA DAILY LOG -- B

DATE 3 FEB 1965

Time at sunrise = Position at sunrise = 0727 163 51 1855
Time at sunset = Position at sunset = 1756 165 19 1818
Miles traveled from 0000 hours to sunrise = 71 MILES
Miles traveled from sunrise to sunset = 98 "
Miles traveled from sunset to 2400 hours = 49 "

	TIME OF FIX	TYPE OF FIX	LONGITUDE	LATITUDE
1.	0700	STARS	163 46	18 57
2.	1105	LORAN	164 20	18 46.5
3.	1314	LORAN	164 35	18 39
4.	1822	STARS	165 24	18 14
5.				
6.				

DATE 4 FEB 1965

Time at sunrise = Position at sunrise = 0639 173 2N 167 02 W
Time at sunset = Position at sunset = 1816 165 8 W 168 50 W
Miles traveled from 0000 hours to sunrise = 59 MILES
Miles traveled from sunrise to sunset = 1105 "
Miles traveled from sunset to 2400 hours = 50 "

	TIME OF FIX	TYPE OF FIX	LONGITUDE	LATITUDE
1.	0600	STARS	166 58	17 34
2.	1118	LORAN	167 44	17 20.5
3.	1445	LORAN	168 16	17 09
4.	1845	STARS	168 52	16 57
5.	2130	RADAR	169 17	16 44
6.	2235	RADAR	169 23.5	16 38

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SMITHSONIAN INSTITUTION
DIVISION OF BIRDS

AT SEA DAILY LOG -- B

DATE 5 FEB 1965

Time at sunrise = Position at sunrise = 0646 169-33w 16-03n
Time at sunset = Position at sunset = 1815 168-35w 14-41n
Miles traveled from 0000 hours to sunrise = 42 mi
Miles traveled from sunrise to sunset = 86 mi 95
Miles traveled from sunset to 2400 hours = 42 mi

	TIME OF FIX	TYPE OF FIX	LONGITUDE	LATITUDE
1.	0200	Radar	169° 28'w	16° 29.8'N
2.	0620	Observation	169° 23.2'w	16° 05'N
3.	1547	Compass	168° 46'w	14° 57'N
4.	1845	Observation	168° 33'w	14° 38.5'N
5.	2222	Logard	168° 39'w	14° 20.5'N
6.				

DATE 6 FEB 1965

Time at sunrise = Position at sunrise = 0644 169-35.2 13-31.5n
Time at sunset = Position at sunset = 1827 170-30w 13-25.5n
Miles traveled from 0000 hours to sunrise = 58 mi
Miles traveled from sunrise to sunset = 98 mi 90
Miles traveled from sunset to 2400 hours = 54 mi

	TIME OF FIX	TYPE OF FIX	LONGITUDE	LATITUDE
1.	0619	Observation	169-33.5w	13-33.5'N
2.	1530	Compass	170-30w	13-30.5'N
3.	1854	Observation	170-24w	12-32.5'N
4.				
5.				
6.				

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SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA CLIMATOLOGICAL DATA

DATE 1 FEB 1965

TIME	LAT	LONG	PRES WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD.
0100															
0200															
0300															
0400															
0500															
0600															
0700															
0800															
0900															
1000															
1100															
1200	21 08.5	158 00.5	SCT	10	2985	69	64	85	3	000-1	78	13	260	208	
1300	21 09.5	158 04.5	SCT	10	2984	71	67	86	3	000-2	78	15	290	208	
1400	21 10	158 11	SCT	10	2981	73	69	86	3	000-2	78	14	285	270	
1500	20 59	158 17.5	SCT	10	2980	72	68	86	3	000-2	78	14	280	248	
1600	20 56	158 26.5	SCT	11	2981	71	70	88	3	000-2	78	18	310		↑
1700	20 52	158 35	SCT	11	2981	71	70	90	4	000-2	78	18	310		
1800	20 48	158 42	SCT	11	2981	69	69	97	4	000-3	78	21	321		
1900	20 44	158 50	SCT	11	2982	69	68	97	4	000-3	79	21	321		↓
2000	20 41	158 54	SCT	10	2983	69	66	95	4	000-3	79	20	370	248	
2100	20 39	159 04	SCT	10	2985	69	66	95	4	000-3	79	20	030	253	
2200	20 36	159 12	SCT	10	2985	68	67	95	4	000-6	79	20	030		↑
2300	20 34	159 19.5	SCT	10	2985	68	65	90	4	000-8	79	20	030		W
2400	20 32	159 22.5	SCT	10	2983	68	65	90	4	000-8	79	20	088	253	

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES;
WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

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SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA CLIMATOLOGICAL DATA

DATE 2 FEB 1965

TIME	LAT	LONG	PRES WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD.
0100	20 29	159 36.5	SCT	10	29 62	68	63	85	3		340-1	79	12	340	333
0200	20 26.5	159 44	SCT	10	29 82	68	63	85	3		340-1	79	11	345	↑
0300	20 24	159 33	SCT	10	29 83	68	63	85	3		340-1	79	14	350	
0400	20 22	160 00.5	SCT	10	29 84	68	63	85	3		340-1	79	12	345	
0500	20 19	160 04.5	SCT	10	29 45	68	63	85	3		340-1	79	12	340	↓
0600	20 17	160 15	SCT	10	29 57	68	63	85	4		340-1	79	12	340	
0700	20 12	160 23.5	SCT	10	29 47	69	63	80	4		340-1	79	12	340	333
0800	20 12	160 30	SCT	10	29 58	68	63	85	6		341-1	81	12	350	250
0900	20 09	160 37	SCT	10	29 90	71	65	81	6		341-1	82	12	350	↑
1000	20 07	160 43.5	SCT	10	29 92	70	64	81	5		341-2	82	14	350	
1100	20 03.5	160 50.5	SCT	10	29 92	70	64	81	5		341-2	82	14	350	
1200	19 59	161 01	SCT	10	29 89	70	64	81	5		340-6	83	15	350	
1300	19 56	161 08.7	SCT	10	29 87	70	64	81	5		340-6	83	15	350	
1400	19 53.2	161 16	SCT	10	29 86	72	69	91	5		340-6	83	15	350	
1500	19 50.1	161 24	SCT	10	29 84	72	69	91	5		340-6	83	15	350	
1600	19 47.2	161 31.6	SCT	10	29 84	72	69	91	5		340-6	83	15	350	
1700	19 44.8	161 39	SCT	10	29 84	72	69	91	5		340-6	83	15	350	
1800	19 42	161 47	SCT	10	29 85	72	69	91	5		340-6	83	15	350	
1900	19 39	161 54.5	SCT	10	29 87	72	69	91	5		340-6	83	15	350	
2000	19 35.5	162 03.5	SCT	10	29 59	68	65	90	2		000-1	82	8	025	
2100	19 32	162 13	SCT	10	29 91	66	61	85	2		000-1	82	9	020	
2200	19 28.2	162 22.3	SCT	10	29 92	65	60	85	3		000-1	82	10	023	↓
2300	19 24.8	162 32	SCT	10	29 91	65	60	85	3		000-1	82	14	028	
2400	19 21.1	162 41	SCT	10	29 91	69	64	85	3		000-1	82	14	000	230

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES;
WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

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SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA CLIMATOLOGICAL DATA

DATE 3 FEB 1965

TIME	LAT	LONG	PRES WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD.
0100	19 17.3	162 51	SCT	10	29 91	69	64	85	3	000-1	82	10	030	250	
0200	19 14.2	163 00.5	SCT	10	29 90	69	64	85	3	000-1	82	10	030	↑	
0300	19 10.1	163 13	SCT	10	29 89	69	64	85	2	000-1	81	10	030		
0400	19 06.9	163 19	SCT	10	29 88	68	65	90	2	000-1	81	10	030		
0500	19 03.3	163 28.4	SCT	10	29 88	70	65	86	2	000-1	82	10	030	↓	
0600	18 59.8	163 37.8	SCT	10	29 88	70	65	86	3	000-1	82	10	030	↓	
0700	18 56.9	163 46	SCT	10	29 88	70	65	86	3	000-1	82	10	030	250	
0800	18 54	163 54.1	SCT	10	29 88	70	65	86	3	000-1	82	10	030	350	
0900	18 51.1	164 03	SCT	10	29 91	70	69	90	3	000-1	82	10	030	248	
1000	18 48.8	164 11.8	SCT	10	29 92	73	79	98	3	000-1	82	10	030	↑	
1100	18 46.5	164 20	SCT	10	29 91	73	69	98	3	000-1	82	10	030	↓	
1200	18 43.1	164 27.8	SCT	10	29 90	75	72	91	3	000-1	82	10	348	248	
1300	18 38.8	164 34.8	SCT	10	29 89	78	74	87	3	000-1	82	8	348	248	
1400	18 34.3	164 44.5	SCT	10	29 87	79	73	83	4	000-1	82	8	348	243	
1500	18 29.7	164 54.3	SCT	10	29 86	80	76	87	4	000-1	82	8	348		
1600	18 24.4	165 04.1	SCT	10	29 85	74	75	87	4	000-1	82	8	330		
1700	18 19.5	165 14	SCT	10	29 86	78	78	60	5	000-1	82	6	330		
1800	18 15	165 23.3	SCT	10	29 86	74	62	65	5	000-1	82	6	330		
1900	18 11.1	165 31.1	SCT	10	29 88	70	62	77	5	000-1	82	6	330	↓	
2000	18 07.9	165 39	SCT	10	29 88	70	62	77	5	000-1	82	6	330	243	
2100	18 04.1	165 47	SCT	10	29 91	70	67	77	5	000-1	82	6	330	248	
2200	18 01.1	165 54.7	SCT	10	29 91	70	62	77	5	000-1	82	6	330	↑	
2300	17 57.2	166 02.1	SCT	10	29 91	70	62	77	5	000-1	82	6	330	↓	
2400	17 54	166 10.1	BKN	10	29 91	71	65	81	7	060-1	82	9	070	348	

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES;
WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

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SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA CLIMATOLOGICAL DATA

DATE 4 FEB 1965

TIME	LAT	LONG	PRES WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD.
0100	17 50.4	166 18.5	CCF	10	29 69	70	65	86	5		065-1	82	12	070	248
0200	17 47.2	166 26.3	SCT	10	29 68	70	65	86	5		065-1	82	12	070	
0300	17 43.9	166 34.1	SCT	10	29 67	70	65	86	5		065-1	82	12	070	↑
0400	17 40.5	166 42	SCT	10	29 66	68	65	90	5		065-1	82	12	050	
0500	17 37	166 49.5	SCT	10	29 68	69	64	85	5		065-1	82	12	050	
0600	17 34	166 58	SCT	10	29 69	71	63	77	4		065-1	82	12	050	
0700	17 30	166 06	SCT	10	29 69	70	64	81	4		065-1	82	12	050	↓
0800	17 27	166 16	SCT	10	29 69	71	65	81	5		065-2	82	12	050	248
0900	17 24	166 23	SCT	10	29 69	75	71	71	4		065-2	82	12	050	255
1000	17 23	166 31	SCT	10	29 69	76	70	82	4		065-2	82	12	050	↑
1100	17 21	166 39	SCT	10	29 69	78	71	79	4		065-2	82	12	050	
1200	17 19	166 46	SCT	10	29 69	78	67	62	4		065-2	82	12	050	255
1300	17 15	166 54	SCT	10	29 65	75	68	78	4		065-2	82	10	050	248
1400	17 12	166 09	CLT	10	29 63	76	67	79	4		065-2	82	10	050	248
1500	17 09	166 16	SCT	10	29 63	79	69	71	4		065-2	82	10	050	248
1600	17 07	166 34	SCT	10	29 64	78	69	75	4		065-2	82	10	050	244
1700	17 03	166 34	SCT	10	29 63	77	70	79	4		065-2	82	10	050	246
1800	16 57	166 42	SCT	10	29 66	76	69	78	4		065-2	82	10	050	246
1900	16 53	166 50	SCT	10	29 66	75	69	82	4		065-2	82	10	050	246
2000	16 51	166 58	SCT	10	29 67	71	67	90	4		065-2	84	10	030	246
2100	16 48	166 14	SCT	10	29 69	73	66	78	4		025-2	84	10	010	315
2200	16 47	166 18	SCT	10	29 69	73	66	78	4		025-2	84	10	010	270
2300	16 38	166 20	SCT	10	29 69	73	66	78	4		075-2	84	10	060	VARIOUS
2400	16 42	166 31	SCT	10	29 69	73	66	78	4		075-2	84	10	060	

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES;
WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

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SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA CLIMATOLOGICAL DATA

DATE 5 FEB 1965

TIME	LAT	LONG	PRES WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD.
0100	16 35	169 31	5G T	10	29 91	73	65	73	4		025-2	52	10	015	161
0200	16 29	169 38	↑	1	29 89	72	66	82	3		↑↑	54	↑	025	↑
0300	16	169 47			29 87	73	64	78							
0400	16	169 36			29 87	73	64	78							
0500	16	169 25			29 88	73	63	73							
0600	16	169 14			29 89	73	63	73							
0700	16	169			29 90	73	63	73							
0800	15 56	169 02			29 91	74	65	74		↓	10	025	155		
0900	15 48	169 14			29 92	74	63	82		023		12	030		
1000	15 41	169 15			29 91	75	65	78	3	020		14	030		
1100	15	169 10			29 90	76	70	82	3	030		11	030		
1200	15 24	169 06			29 88	76	64	67	4	065	↓	10	100		
1300	15	169 03			29 85	78	68	71	4	↑	84	10	100	155	
1400	15 17	168 55			29 82	75	66	71	3		83	10	100	158	
1500	15 02	168 50			29 82	74	69	71	2		↑		12	090	
1600	14	168 45			29 81	74	68	71					12	090	
1700	14	168 40			29 82	75	66	74					12	055	
1800	14 42	168 35			29 82	74	67	78					10	055	
1900	14 35	168 31			29 83	73	69	82					10	055	153
2000	14 30	168 28			29 87	73	67	82		065		10	055	153	
2100	14 25	168 25			29 87	72	67	82		045		10	060	226	
2200	14 20	168 19			29 87	73	67	82	3	045	↓	10	060		
2300	14 15	168 15			29 87	73	67	82	3	045-2	↓	10	060	↓	
2400	14 10	168 31	5G T	10	29 86	71	73	81	1	045-1	83	12	055	226	

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES;
WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

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SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA CLIMATOLOGICAL DATA

DATE 6 FEB 1965

TIME	LAT	LONG	PRES WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD.
0100	14 05	168 57	SCT	10	29 55	76	76	62	1		045-1	83	12	055	226
0200	13 59	169 05		▲	29 54	75	71	89	2		050-▲	↑	↑	✓	
0300	13 53	169 11			29 52	74	71	91	5		▲				
0400	13 48	169 17			29 52	72	68	86	5				✓		
0500	13 43	169 23			29 53	73	67	82	4			↓			
0600	13 37	169 29			29 53	74	68	82	4		83				
0700	13 31	169 34			29 54	75	69	82			84	1			↓
0800	13 25	169 41			29 54	75	70	78			↑	12	✓	326	
0900	13 23	169 44			29 56	76	76	75			↓	3		325	
1000	13 17	169 44			29 56	77	70	79			1	12	✓		
1100	13 15	170 00			29 55	77	70	79			2	0			↑
1200	13 10	170 00			29 53	86	61	27			↑	0			
1300	13 03	170			29 53	87	62	68				5			
1400	13 02	170			29 55	87	62	68				5			
1500	12 53	170 17			29 52	82	63	55			↓	5			
1600	12 47	170 13			29 50	84	76	76			-2	5			
1700	12 46	170 10			29 51	82	74	76			1	4			
1800	12 38	170 07			29 52	80	73	79			↑	1	✓		↓
1900	12 35	170 04			29 58	79	75	59							
2000	12 26	171 04			29 79	75	71	86						225	
2100	12 17	171 04			29 51	75	72	91						215	
2200	12 13	171 13			29 50	75	72	91							↑
2300	12 10	171 10			29 52	75	71	56	4		85	1	✓	215	
2400	12 08	171 07	SCT	10	29 61	75	71	86			050	1	84	11	314

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES;
WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

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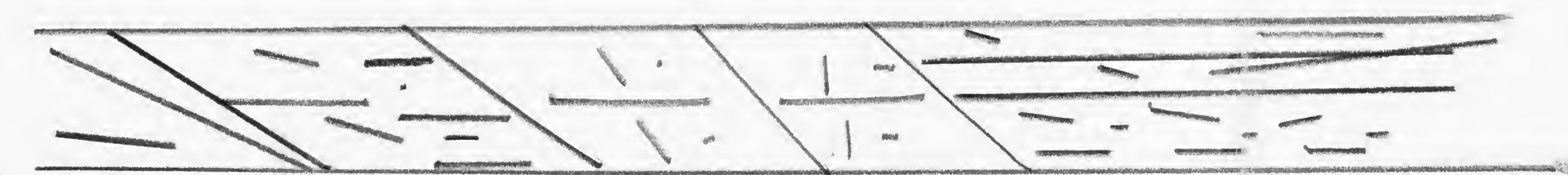
SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA CLIMATOLOGICAL DATA

DATE 7 FEB 1965

TIME	LAT	LONG	PRES WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD.
0100	12 12	171 32	SCT	10	29 80	74	70	86	2		070-2	83	14	070	314
0200	12 16	171 36	↑	↑	29 81	75	71	86	↑		↑-1	↑	↑	↑-1	↑
0300	12 21	171 41			29 80	76	70	86							↓
0400	12 26	171 46			29 80	76	70	86					↓		314
0500	12 31	171 51			29 80	75	69	82					↑		0415
0600	12 36	171 56			29 80	74	70	86					16		↑
0700	12 41	171 51			29 82	74	70	86			×		17	✓	↓
0800	12 46	171 46			29 82	76	70	82			070-1	↓	070	045	
0900	12 51	171 41			29 84	74	70	86			060-	83	060	041	
1000	13 01	171 36			29 84	75	68	78			↑	84	↑		↑
1100	13 07	171 31			29 82	76	69	78				↑			
1200	13 12	171 26			29 79	78	68	71							
1300	13 17	171 21			29 78	75	68	78					7		↓
1400	13 22	171 16			29 76	75	68	78					4		
1500	13 23	170 55			29 77	78	70	78					↑		041
1600	13 29	170 50			29 78	76	68	78	2						0415
1700	13 44	170 45			29 80	78	68	78	3						
1800	13 51	170 40			29 80	78	68	78	1		↓		↓		↓
1900	13 58	170 35			29 85	75	68	78	↑		060-	14	060	045	
2000	14 05	170 30			29 85	80	67	64			060	17	050	047	
2100	14 09	170 23			29 86	79	66	64			↑	17	↑	4	
2200	14 13	170 17			29 86	79	64	63				16			↑
2300	14 20	170 12			29 87	78	64	63	3		050-2	84	16	050	↓
2400	14 25	170 07	SCT	10	29 87	74	67	78	3		050-2	84	16	050	047

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES;
WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS



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SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA CLIMATOLOGICAL DATA

DATE 8 FEB 1965

TIME	LAT	LONG	PRES WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD.
0100	14 32	169 59	SCT	10	29 56	74	68	82	3		050-3	84	8	050	047
0200	14 38	169 52	↑	↑	29 46	74	67	78	↑		↑	↑	↑	050	047
0300	14 47	169 48			29 34	74	68	82						050	
0400	14 57	169 41			29 24	74	69	86						050	
0500	14 57	169 35			29 14	73	69	86						060	
0600	15	169 24			29 67	73	69	86							047
0700	15	169 15			29 40	73	64	86							047
0800	15	169 08			29 91	74	71	91							044
0900	15	169 01			29 93	75	72	91	↓						044
1000	15	169 04			29 43	77	73	87	3						314
1100	15	169 07			29 94	78	74	87	5						314
1200	15	169			29 92	73	69	82	8		↓				310
1300	15 07	169			29 89	75	69	82	4		84	14			310
1400	15 03	169 57			29 87	74	70	86	4		83	2			314
1500	15 47	169 08			29 55	↑	68	82	4		↓	33	2		314
1600	15	169 10			29 56	68	82	5	-	050-	33	15	060		314
1700	15 08	169 20			29 37	67	78	↑		030	84	1	040		330
1800	15 12	169 36			29 58	67	75			10	↑			070	330
1900	15 15	169 41			29 40	67	75			060				070	
2000	15 17	169 47			29 93	67	78			060-				000	078
2100	15 21	169 52			29 94	67	78			065				000	078
2200	15 23	169 51	↓		29 94	↓	67	78	↓		065	↓	↓	000	078
2300	15 23	169 48	SCT	10	29 94	74	67	78	5		065-3	84	18	000	078
2400	15 26	169 42	CLR	10	29 94	76	67	74	1		095-2	83	10	090	078

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES;
WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS



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SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA CLIMATOLOGICAL DATA

DATE 9 FEB 1965

TIME	LAT	LONG	PRES WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD.
0100	16 20	69 25	CLR	10	29 93	76	67	74	1	095	2	83	10	095	000
0200	16 21	69 26	CLR	10	29 91	75	66	74	1	095	↑	83	10	↑	000
0300	16 20	69 27	CLR	10	29 90	75	66	74	1	095					000
0400	16 19	69 27	SCT	10	29 89	73	66	78	2	095					000
0500	16 18	69 28	SCT	10	29 89	73	66	78	3	095				↓	000
0600	16 17	69 28	SCT	10	29 82	74	65	74	2	095			095	000	000
0700	16 16	69 27	SCT	10	29 94	75	66	74	2	095	↓	83	10	080	000
0800	16 13	69 26	SCT	10	29 93	74	67	74	3	095	83	10	↑	069	
0900	16 12	69 25	SCT	10	29 96	73	66	78	8	095	84	12			
1000	16 11	69 24	SCT	10	29 96	75	66	78	6	095	↑		↑		
1100	16 10	69 24	SCT	10	29 96	75	66	74	4	095					
1200	16 09	69 24	SCT	10	29 94	75	68	74	4	095					
1300	16 07	69 24	SCT	10	29 92	75	68	75	4	095				↓	
1400	16 05	69 24	SCT	10	29 90	74	67	78	4	095					
1500	16 03	69 24	SCT	10	29 88	74	67	78	4	095				069	
1600	16 01	69 24	SCT	10	29 89	74	67	78	4	095	84			↑	
1700	16 00	69 24	SCT	10	29 90	74	67	78	4	095	83				
1800	15 58	69 24	SCT	10	29 91	74	65	74	4	095	83			↓	
1900	15 57	69 24	SCT	10	29 92	72	66	78	4	095	83				
2000	15 56	69 24	SCT	10	29 93	72	66	78	4	095	82			069	
2100	15 55	69 24	SCT	10	29 94	72	66	78	4	095	↑				
2200	15 54	69 24	SCT	10	29 94	72	68	86	4	095				↓	
2300	15 53	69 24	SCT	10	29 94	72	68	86	4	095	↓	82	12	080	↓
2400	15 52	69 24	SCT	10	29 94	73	67	82	4	095	2	82	12	080	

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES;
WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

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SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA CLIMATOLOGICAL DATA

DATE 10 Feb

TIME	LAT	LONG	PRES WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD.
0100			SCT	10	29 92	72	68	86	H		080-2	83	13	095	069
0200			▲	▲	29 40	72	68	86	4		↑	84	13	▲	▲
0300					29 30	72	66	82	4		↑	13			
0400					29 21	73	67	82	3				13		
0500					29 92	75	68	78	3				↑		
0600					29 43	76	67	74	3			↓	1		
0700					29 93	77	68	74	3		↓	84	13	↓	
0800					29 24	76	69	78	3		080-	83	13		
0900					29 95	76	69	78	4		085	83	14		
1000					29 96	76	69	78	5		085	83	14		
1100			✗		29 97	76	69	78	5		090	83	16		
1200			SCT		29 95	73	69	86	5		↑	54	↑		
1300			BKN		29 93	74	68	82	7		↑				
1400			↑		29 96	71	68	93	7		↑				
1500					29 69	72	68	86	7						
1600			✗		29 89	73	67	82	7			16			
1700			BKN		29 96	74	67	78	7			14			
1800			OVC		29 91	72	68	86	8			14			
1900			OVC		29 91	72	66	82	8		↓	14			069
2000			OVC		29 93	72	66	82	8		090	↓	14	095	066
2100			OVC		29 93	72	66	82	8		035	64	12	040	↑
2200			BKN		29 93	72	66	82	8		035	83	12	040	
2300			BKN	✗	29 93	72	66	82	8		035	83	12	040	
2400			BKN	10	29 94	71	65	81	8		065-	83	12	065	↓

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES;
WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

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SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA CLIMATOLOGICAL DATA

DATE 11 FEB 1965

TIME	LAT	LONG	PRES WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD.
0100	29 41	161 51	BKN	10	29 92	69	61	76	7		065-2	83	12	065	066
0200	29 37	161 51	ADVANCE	CLOUDS	-	-	-	7							
0300	29	161 51	BKN	10	29 91	69	61	76	7		065-2	83	12	065	
0400		161 51	SCT	↑	29 90	70	64	81	4		092	82	14	065	
0500		161 51	SCT	↑	29 91	69	63	81	11				14	065	
0600		161 51	SCT	↑	29 92	69	61	72	4				14	065	
0700		161 51	SCT	↑	29 93	71	62	72	2				10	085	
0800		161 51	↑	29 94	71	62	72	73	↑				↑	0610	
0900		161 51	↑	29 94	72	59	73							068	
1000		161 51	↑	29 94	73	66	78								↑
1100		161 51	↑	29 95	75	66	71								
1200		161 51	↑	29 94	74	65	71								
1300		161 51	↑	29 92	74	63	69								
1400		161 51	↑	29 90	74	63	69								
1500		161 51	↑	29 87	74	67	78								
1600		161 51	↑	29 87	75	66	74								
1700		161 51	↑	29 86	74	67	78						↓	065	
1800		161 51	↑	29 86	74	67	78							10	070
1900		161 51	↑	29 87	74	67	78								068
2000		161 51	↑	29 87	73	67	82						15	↑	072
2100	29 08	161 51	↑	29 88	72	68	86						15		
2200	29 08	161 51	↑	29 89	71	67	86						15		
2300	29 10	161 50	↑	29 90	70	65	86	↓			065-2	82	15	070	↓
2400	29 12	161 50	↓	SCT	10	29 96	68	62	86	↓			12	070	↓

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES;
WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

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SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA CLIMATOLOGICAL DATA

DATE 12 FEB 1965

TIME	LAT	LONG	PRES WEA	VIS	SLP	DRY B	DEW PT	HUM %	TL SKY	OPA SKY	WAVES	SEA TEMP	WIND S	WIND D	SHIP COURSE/SPD.
0100	15°	160°	Sct	10	50.1	68	4	62	80	2	(	065 2	82	070	10 072
0200	15°	159°	Sct	11	50.1	68	4	62	86	2	(	065 2		↑	↑ 7
0300	15°	158°	Tr	11	50.2	68	3	60	76	3	(	065 2	1		
0400	15°	157°	Sct	11	50.2	68	3	60	76	2	(	065 2			
0500	15°	156°	Sct	11	50.2	68	3	60	76	2	(	065 2			
0600	15°	155°	Sct	11	50.2	68	3	60	76	2	(	065 2		↓	↓
0700	15°	154°	Sct	11	50.2	68	3	60	76	2	(	065 2	↓	070	10
0800	15°	153°	Sct	10	50.2	69	3	58	72	3	(	030 2	82	015	10 072
0900															030
1000															050
1100															050
1200															
1300															
1400															
1500															
1600															
1700															
1800															
1900															
2000															
2100															
2200															
2300															
2400															

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES;
WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS